Fundamental research on the implementation of value-based pricing in Dutch manufacturing SMEs

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ABSTRACT,
This research has the purpose of giving an overview of the barriers and conditions that play a role in SMEs decisions on the adoption of value-based pricing. According to theory, value-based pricing is a superior pricing strategy. Nevertheless, at SMEs using other less sophisticated pricing strategies is more common practice. The question, therefore, is what prevents SMEs from using value-based pricing, in other words what the barriers to the implementation are and which conditions would be necessary to simplify the implementation. For this purpose, a survey has been conducted at Dutch SMEs to analyze what pricing strategies they use and what benefits and complications they see regarding value-based pricing. It has been found that Dutch SMEs predominantly use cost-based pricing methods. They have overall limited understanding of what value-based pricing is and are subject to pressures from buyers to keep the prices as low as possible, which prevents them from using the pricing method. This research concludes that practitioners at SMEs might be more successful using other pricing strategies than value-based pricing. Further research can use the barriers and conditions defined to develop a framework for SMEs that guides them in finding the most effective pricing strategy for their company.

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Value-based Pricing, Small-and-medium Enterprises, Pricing strategy, Perceived Customer Value, Value Assessment, Value Exchange, Change Management.

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1. INTRODUCTION

1.1 Background

Doing business is generally about two things: value delivery and value extraction. While companies usually are good at value delivery, they often fail at value extraction, at getting the monetary return for their delivered value (Simon, Butscher, & Sebastian, 2003). This means that they are insufficiently effective at setting their prices. However, the price of a company's product is one of the most influential factors of their profitability (Hinterhuber A. , 2004). Price determines the amount of revenue created that can be used for further investment in the company (Kienzler & Kowalkowski, 2017). So, higher prices can result in higher growth opportunities. Also, pricing is the most flexible component of the marketing mix as new prices can be implemented quickly (Singh & Janor, 2013). Nevertheless, prices cannot be arbitrarily increased but certain price-setting strategies should be used. Literature finds that key to profitability is understanding the value delivered to customers, design products that are aligned with customer's needs and set prices that capture this value (Hinterhuber A. , 2008a). A pricing strategy that focuses on this idea is value-based pricing. With this method, the price of a product is determined in regard of how much value it will bring to the customer and, consequently, how much the customer would be willing to pay for it. It is different from other pricing strategies as it does not aim at providing the lowest price possible considering production costs and competitors' prices but tries to identify the highest price under which the product can sell. Thus, implementing value-based pricing can assist companies in raising profits without trying to push costs down.

1.2 Research gap

While the literature states that value-based pricing is an overly useful pricing strategy, small-and-medium enterprises (SMEs) typically use less sophisticated cost-based or competitor-based pricing strategies (Carson, Gilmore, Cummins, O'Donnell, & Grant, 1998). They state that this comes from a lack of resources to implement other strategies, difficulties with differentializing the products sold and a lack of managerial motivation. However, implementing value-based pricing could be of substantial benefit for SMEs to remain competitive in the market, as it can increase revenue without major changes in the business operations.

1.3 Purpose of the study

Obvious as it may seem, the question is for what reasons SMEs do not use value-based pricing, and how SMEs could be eased into implementing this strategy. Therefore, the purpose of this study is to determine the constraints of SMEs to implement value-based pricing and the conditions that should be in place for SMEs to consider using it. For this, information is necessary from both, SMEs that are using value-based pricing, and SMEs that are not.

1.4 Theoretical positioning

The concept of value-based pricing will be approached from the perspective of manufacturing SMEs in industrial markets that are based in the East of the Netherlands. The perspective of a small manufacturing business has not yet been widely studied, most of the research has been done on theoretical views of value-based pricing and on the effects in the drug industry. However, also in this field only little research has been done, as only 2% of high-end academic research is in the field of pricing strategies (Kienzler & Kowalkowski, 2017). Value-based pricing is a technique that can give companies a competitive advantage in a straightforward way without having to change products or processes. Therefore, it could be especially useful for SMEs who do not have the finances to implement great operational changes in their business but do want to increase their profitability. To conduct the research, findings from the fields of small business management pricing strategies, and lastly, customer value will be used.

1.5 Research strategy and data

First, the literature will be analyzed on theoretical ways and recipes of approaching and implementing value-based pricing. Meanwhile, a number of Dutch manufacturing SMEs in the East of the Netherlands will be asked to fill in a survey on their own pricing practices and the perceptions they have of the benefits and barriers to value-based pricing. From the survey, it will be possible to identify which firms do use value-based pricing and which do not. The survey will also consist of open-ended questions in which SMEs give answer to why they are not using value-based pricing or in which way they use it, respectively. From this information, together with the knowledge base provided by the literature on value-based pricing, distinct constraints of value-based pricing for SMEs, as well as the necessary conditions to set up value-based pricing will be defined.

1.6 Expected contribution

The study will provide the first steps to an accessible model of implementing value-based pricing for SMEs by determining the restricting constraints to and the necessary conditions for implementation. It is left for further research to put these factors into a practicable adoption model.

1.7 Outline of the study

The report will start with an extensive analysis of the relevant literature and will then continue to evaluate the data collected empirically. In a subsequent section, the findings will be integrated to define the constraints and conditions of value-based pricing that constitute the main result of the research. The report will end with some final conclusions, implications for future research on the subject, and managerial implications as to how the findings can be used in practice.

2. LITERATURE REVIEW

2.1 Alternative pricing strategies

The appropriate pricing strategy is determined by company-specific pricing objectives and the internal and external conditions, including company- and product-related elements, and conditions regarding the market, customer and competitors (Rao & Kartono, 2009).

In general, one differentiates between three approaches to price-setting: cost-based pricing, competition-based pricing and value-based pricing (Hinterhuber, 2004, 2008b). Cost-based pricing means that the price of a product is set related to its production costs. Under this category falls the cost-plus method that determines price by taking the costs of the product plus a desired profit margin. With competition-based pricing the products' price is set regarding the prices competitors ask for comparable products. Lastly, value-based pricing considers the value the product will deliver to the customer to decide the price. This latter approach to pricing is seen by literature as the most sophisticated and superior to the other approaches (Harmon, Demirkan, Hefley, & Auseklis, 2009). Under these general approaches to pricing, different, more specific pricing strategies can be identified (Cannon & Morgan, 1991; Noble & Gruca, 1999; Rao & Kartono, 2009) but for the purpose of this research, it suffices to differentiate between the three approaches above.

An empirical study by Rao & Kartono (2009) analyzed the pricing practices at 199 companies of all kinds of sizes across different countries. They found that the most-used pricing strategy is cost-based pricing, with perceived value strategy, a strategy falling under value-based pricing, coming second. However, there has been no distinct relationship found between firm size and the implemented approach. Furthermore, they position themselves negatively towards cost-based strategies, stating that they do not make sense since the product's unit costs cannot be determined without knowing the sales volume which is dependent on the price of the product.

A meta-analysis of several empirical research findings on pricing practices, also found that cost- and competitor-based strategies are most commonly used (Hinterhuber A. , 2008b). It found an overall adoption rate of pricing practices that consider customer value of only 17%.

Carson et al. (1998) studied SMEs pricing strategy specifically. They found that in Northern Ireland, cost-based pricing is most frequently used amongst SMEs. It is common practice to use pricing just to make up for the costs incurred with the production and earn a little profit margin above it. The study also shows that SMEs main approach to receiving higher profit is pressing down costs. However, it has been stated that in general, costs have been reduced so drastically already, that there is no more room left for further reductions and other ways of maximizing profit, such as a reasonable increase in price, need to be considered (Schumpeter, 2013). Thus, the idea of SMEs to earn higher profit by reducing costs is difficult to realize. Nevertheless, it has been found that SME managers have only little motivation to make an effort for employing more sophisticated pricing methods, and pricing is done in an "unstructured, haphazard, and apparently chaotic fashion" (Carson et al., 1998).

It is evident that cost-based pricing practices are the most prevalent. However, value-based pricing, as mentioned above, is the most emphasized by scholars. Business transactions can be defined as consisting of two parts. On the one hand, the company delivers value to its customers, and on the other hand, the company needs to extract a monetary return from this value. This concept is known as value delivery and value extraction (Simon, Butscher, & Sebastian, 2003). Generally, companies succeed at delivering appropriate value but have difficulty extracting the return from it for themselves. This last capability can be enhanced by introducing value-based pricing.

While value-based pricing is overall the most thorough pricing strategy, it has been noted that when setting prices contingencies should be considered. The effectiveness of the pricing strategy chosen can depend on the relative product advantage of the firm and the competitive intensity in the market (Ingenbleek, Debruyne, Frambach, & Verhallen, 2003). When there is high competition that has superior products, the effectiveness of value-based pricing might be impaired. Companies should always consider the environment they are in when making pricing decisions. Often, aspects from different pricing approaches are combined to result in a hybrid strategy used by the company (Ingenbleek et al., 2003).

2.2 Implementation of value-based pricing

Adopting a profitable pricing strategy is a matter of three different elements: using resources effectively; managing relationships in the industry, e.g. with competitors; and managing the value exchange with customers (Cressman Jr, 2012). Thus, one can say that the capability of superior pricing is based on the specific skill sets of the company rather than industry standards (Hinterhuber & Liozu, 2012). To increase effectiveness, the chosen strategy should be executed consistently over a longer time period (Hinterhuber A. , 2008a).

As companies should use a contingency approach to choose their pricing strategy (Ingenbleek et al., 2003), tools exist to determine which pricing strategies are appropriate considering the companies' internal and external environment and their pricing objectives. A list of six yes-or-no questions concerning customers' experience and offerings of competitors can help make this decision (Cannon & Morgan, 1991). Answering these questions will leave the company with a limited number of useful strategies and considering the company's pricing objectives will help find the most appropriate one. Pricing objectives are generally profit, customer satisfaction, competitive vulnerability strategic consistency and simplicity (Cannon & Morgan, 1991).

Broadly speaking, the adoption process of a new pricing strategy consists of 4 phases: (1) Analysis; (2) Decision; (3) Implementation; and (4) Monitoring (Simon, Butscher, & Sebastian, 2003). The analysis phase is greatly impacted by what kind of data the firm has, how they can use this data, whether clear objectives are set and whether the analysis can be conducted in a specified timeframe. During the decision phase, managers will use a framework, such as the one by Cannon & Morgan (1991), to decide on appropriate prices and how they can be implemented. In the implementation phase it is crucial that the goals and the usefulness of the new pricing strategy is communicated clearly across the organization, especially to the sales force. A related incentive scheme can help align employees' actions with the goals of management. Optimally, salespeople are mainly concerned with maximizing income and are less concerned with enhancing sales volume levels (Cressman Jr, 2012). The last step, monitoring, is predominantly concerned with ensuring that the new pricing strategy is adopted correctly, and employees who do not conform with the new guidelines are dealt with accordingly.

More specifically, Hinterhuber (2004) determined 4 steps to define appropriate prices using the value-based approach. His approach is different from Simon et al. (2003) as the analysis phase is divided into two separate steps: the definition of pricing objectives, and the analysis of the companies' internal and external environment. To guide the analysis phase specific instruments are in place (Ohmae, 1982). Also, Hinterhuber's (2004) model ends with the implementation of the new prices but does not require monitoring. A combination of the two models could be useful, where the analysis part is indeed divided into a part about pricing objectives and a part about analyzing the company's circumstances, and the monitoring step of Simon et al. (2003) is included. This will result in the following model (see Table 1).

Step 1	Defining pricing objectives.
Step 2	Analyzing the company and its environment (the customers and competitors).
Step 3	Deciding on a pricing strategy.
Step 4	Implementing the pricing strategy.
Step 5	Monitoring the effective adoption of the pricing strategy.

Table 1: Steps to the implementation of value-based pricing (based on Simon et al., 2003 and Hinterhuber, 2004).

Rao & Kartono (2009) analyzed empirically the pricing objectives that companies typically come up with in step 1. They found that next to making up for required costs, a great number of other objectives play a role in pricing decisions. The most used objectives are then: increasing/maintaining the market share or the profit, pricing rationally, maintaining a competitive level, avoiding government attention, building up and maintaining barriers to entry, maintaining distributor support and projecting a desired product image.

As step 2, analyzing the company and its environment, especially analyzing customer value, is a key element of making value-based pricing decisions, a subsequent section is designated to elaborate on this (*Section 2.2.4*).

As mentioned above, step 3, making the decision on which pricing strategy to use, is aided by theoretical frameworks such as the one by Cannon & Morgan (1991).

Key to the implementation of value-based pricing (step 4) is changing the company's culture towards this pricing strategy (Cressman Jr, 2010). Six dimensions are relevant to this change process (see Figure 1).

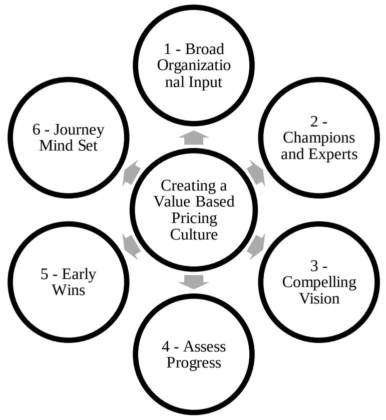

Figure 1: Key elements for creating a value-based pricing culture (adapted from Cressman Jr, 2010)

Companies should start by increasing understanding of the value-based pricing concepts organization-wide by educational and training efforts, thus broadening organizational input. Installing champions and experts helps spreading this knowledge across the firm and as they are often passionate about the subject they excel in, champions and experts will also increase enthusiasm for the new concept, in this case value-based pricing, and enhance employees' willingness to adopt the methods. This goes hand-in-hand with developing a compelling vision with which the goals of the new pricing strategy are clearly communicated. To assess progress measurement systems should be installed that monitor the achievement of milestones. These milestones should then be communicated to the organization and celebrated as early wins. An overarching dimension is that throughout the whole process a long-term mind set should be encouraged. The implementation of a new ground-breaking pricing strategy such as value-based pricing will take a long time, literature states that it can take four to seven years to successfully adopt this pricing strategy (Hinterhuber & Liozu, 2012).

The Pricing Capability Grid (Hinterhuber & Liozu, 2012) can be used to analyze a companies' ability to set appropriate prices and actually realizing them. This matrix is based on the distinction between price setting and price getting. Price setting is mainly what has been addressed so far. Price getting goes further and assumes that the prices that a company sets for their products will not necessarily be realized. This can happen when short-term price adjustments are made regularly, such as giving discounts, or when negotiations with the customer require the salesmen to lower the price, which is a major risk in the B2B market. Using this matrix (see Figure 2), companies can be placed in 5 different "primary zones of pricing" (Hinterhuber & Liozu, 2012).

The question what customer value actually is and how it can be measured and improved remains.

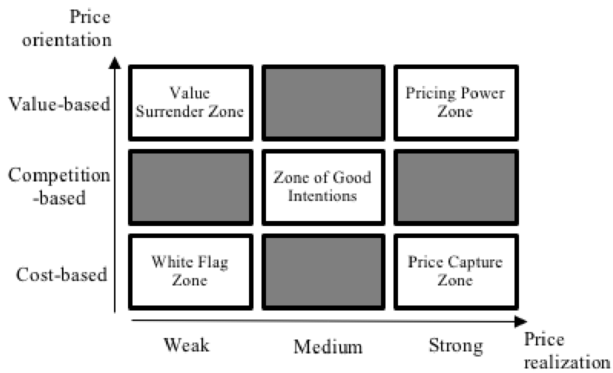

Figure 2: Primary zone of pricing (adapted from Hinterhuber & Liozu, 2012)

2.2.1 *Perceived Customer Value*

There are two approaches to customer value: (1) customer value is the difference between the benefits obtained from a product and the price paid for it; and (2) customer value is the price the customer is willing to pay at most (Liozu, Hinterhuber, Boland, & Perelli, 2011). Regardless of which approach one uses, there are five dimensions that can define customer value: Economic value of the product, performance value of the product, supplier value of the product, the motivation of the buyer and the situation in which the product is bought (Harmon et al., 2009). This underlines the findings of Töytäri, Rajala & Alejandro (2015) that value can come either from the product itself, or from the relationship between the buyer and the seller.

A key concept for step 2 above is economic (or customer) value analysis. With this method customer value of a particular product can be deeply understood and quantified. Forbis & Mehta (1981) introduced a straight-forward mathematical model to the analysis of EVC, economic value to the customer. It is a function of the product's life-cycle costs less the start-up and post-purchase cost plus the incremental value (see Figure 3).

$$EVC_x = LC_y - SC_x - PPC_x + IV_x$$

Figure 3: Calculating EVC (Forbis & Mehta, 1981)

Start-up costs are costs that the customer when first starting to use the product, post-purchase costs are mainly related to maintenance and repair and ongoing training to use the product- The life-cycle costs are then the original purchasing costs, the start-up costs and the post-purchase costs added up.

To enhance perceived customer value, and therefore, justify demanding higher prices, companies can engage in six different practices. They can improve product quality, delivery or performance, develop service support and personal interaction, and increase supplier know-how or make adjustments to their time-to-market (Hinterhuber A. , 2008b).

However, managing the value exchange cannot be exclusively focused on customer value assessment but should include 5 other aspects that are just as important (Cressman Jr, 2012). These are laying a foundation of sophisticated customer targeting, providing structure to the customer, communicating the delivered value, negotiating the value and setting the price.

2.2.2 *Barriers and Conditions*

Barriers to the implementation of value-based pricing can come from multiple different sources. A general distinction can be made between individual-, organization- and environment-generated barriers (Töytäri, Keränen, & Rajala, 2017). Individuals can resist implementing value-based pricing because of prevalent beliefs and attitudes, inappropriate experience and skills for the implementation, and a fear of the high cost and complexity of quantifying customer value. The organization creates barriers to value-based pricing by promoting a product-oriented sales culture that is concerned primarily with short-term profit, by the governance and tools employed that are often aligned with the product-oriented culture and by inefficient customer selection. Companies will often sell to anyone who is willing to buy, but that leaves them with limited knowledge about what their customer value specifically and how they can enhance the value their product provides to the customer. Environmental factors that can inhibit the successful adoption of value-based pricing are the prevailing buying culture, incompatible value conceptions, the supplier's brand identity, incompatible time horizons and the value sharing power within the network (Töytäri, Keränen, & Rajala, 2017).

Hinterhuber (2008a) defined five more specific barriers to value-based pricing that companies typically encounter. These are getting top management support, assessing the delivered value and communicating it effectively, market segmentation, and lastly managing the sales force.

The lack of top management support can be related to cognitive biases that managers perceive when they are making pricing decisions. The five main cognitive biases are perceived lack of control, herding, fixed-pie bias, ambiguity aversion and egocentric fairness bias (Kienzler, 2018). While perceived lack of control and ambiguity aversion are straightforward concepts, the rest are not and will be explained. Herding means that rather than choosing individually what kind of strategy should be employed, the manager will go with the masses and accept the pricing strategy competitors are also using. As value-based pricing is a relatively new strategy and not widely employed, herding will prevent managers from choosing to implement this strategy. Fixed-pie bias is the assumption that the value the customer and the seller get out of a transaction is pre-set and unchallengeable in negotiation. It is based on the belief that what the customer wins in value from the transaction will be lost by the seller and vice versa (Hinterhuber A. , 2004). However, this is not always true, and value-based pricing can increase the benefits that both seller and customer get out of a transaction. Lastly, egocentric fairness bias is concerned with the customer's perception of a fair price. It is assumed that the customer sees a lower price, based on the costs inquired for the supplier, as fairer than a higher price, even if it is based on value. It has been found that this perception is prevalent in industry relationships but that it does not necessarily present reality. Actually, value-based prices can be just as fair for the customer and will also be fair for the supplier (Kienzler, 2018).

For the five main obstacles defined above, best practices have been defined to overcome these and successfully implement value-based pricing (Hinterhuber & Bertini, 2011). The issue of customer value assessment is best addressed by conducting thorough empirical research in the form of expert interviews and value-in-use assessments. To communicate the value, best practice firms focus on reducing their customers' preoccupation with prices and thoroughly explaining the products benefits for the customer and its business. Market segmentation can best be done according to specified needs rather than intuitively. The sales force is trained and monitored to focus on value and promotions using price discounts are avoided by them. Lastly, senior management is convinced by the benefits of value-based pricing and aids in its implementation by providing "vision, context and incentives" (Hinterhuber & Bertini, 2011).

Töytäri (2015) analyses barriers that are more specifically related to industrial buying situations where the buyer-seller relationship plays a significant role. These are three institutional barriers: (1) understanding and influencing the desired value perception; (2) quantifying and communicating value in the buyer-seller relationship; (3) capturing a share of the value created in industrial exchange. A major barrier is that buyers do not understand the benefits of value-based pricing and just try to push prices down as far as possible.

Relating to SMEs specifically, it has been found that a major barrier for them is that the markets they operate in are only scarcely differentiated. This means that competitors provide products that are so similar that it is difficult to deliver unique value to customers under premium prices (Carson et al., 1998). Generally, SMEs will be sure to conform with industry standards on pricing.

The first condition to the successful implementation of value-based pricing is a thorough understanding of its theoretical concepts (Liozu, Hinterhuber, Boland, & Perelli, 2011). Further necessary conditions that should be in place are organizational champions, organizational mindfulness and organizational efficacy. While championing is a recurring subject in the literature on the barriers and conditions of value-based pricing, organizational mindfulness and efficacy are not. Organizational mindfulness results in a wider analysis of organization-specific issues and a more profound attempt of solving these issues (Weick & Sutcliffe, 2007). Organizational efficacy is then the confidence of employees in their ability to accomplish their goals together. More specifically this means that, to enable value-based pricing successfully, companies should focus on organizational championing, the development of front line employee capabilities, increasing the level of confidence of the whole organization and installing a centralized pricing team with great expertise that can support the organization in the transition (Liozu S. M., Hinterhuber, Perelli, & Boland, 2012).

To summarize, Table 2 gives an overview of the main barriers and conditions mentioned.

Barriers
Individual beliefs and attitudes
Inappropriate experience and skills
Assessing the delivered value
Influencing the desired value perception
Communicating value
Promotion of product-oriented sales culture, and associated company governance and tools
Inefficient customer selection
Prevailing buying culture
Incompatible value conceptions between buyer and seller
Poor sales force management
Conditions
Thorough understanding of the concept
Getting top management support
Organizational Championing
Organizational Mindfulness
Organizational Efficacy

Table 2: Overview of the barriers and conditions of value-based pricing

For the empirical research, only the general theory about what value-based pricing is exactly and the barriers and conditions that are relevant. The other subjects of the implementation and customer value assessment are useful background knowledge for practitioners and to understand the concept better but are not included in the empirical research as they do not lead to an answer to the major research question of why SMEs do not use value-based pricing and what conditions are necessary for them to use it.

3. METHODOLOGY

To arrive at empirical findings about the usage of value-based pricing, a survey has been conducted across manufacturing SMEs in the East of the Netherlands. SMEs are classified as companies with 10-250 employees (European Commission, 2003). This survey was cross-sectional, meaning that respondents have filled in the survey at only one point in time (Dooley, 2009). Around 700 companies have been approached, of which 19 filled in the survey completely.

The survey has been conducted via a web survey provider. Online surveys are an effective way to get information from a great number of respondents in a timely manner (Fink, 2013). Also, with this method it is relatively easy to exclude certain questions for certain people during surveying (Fink, 2013). It is possible to condition that if the respondent answered that he is using value-based pricing practices, he will get other follow-up questions than if he is using other practices. This is a relevant function for this study as the goal is to find out the conditions necessary and the barriers restraining value-based pricing, meaning different information from companies using value-based pricing and not using value-based pricing is needed.

In general, web surveys sent via mail have a relatively low response rate (Dooley, 2009), but this risk has been mitigated by sampling companies via a company list of a consultancy bureau that frequently conducts research.

The survey items (see Appendix, Table 4) have been stated in Dutch as it is not realistic to expect that all respondents have sufficient knowledge of the English language. The answers have then been translated for the purpose of presenting the analysis and results.

There was a balance to be made between asking open-ended or closed-ended questions because they each have particular advantages and drawbacks. Open-ended questions can be problematic because they cost the respondent more time. Therefore, they may not be answered fully or in the way expected, making it hard to analyze them later on but on the other hand, they provide the possibility that the respondent talks about subjects the surveyor did not think about yet (Andres, 2012). Closed-ended questions however force the respondent to choose from the options given, even if they have some other answer option, that is not given, in mind (Dooley, 2009). To resolve this, the survey started with an open-ended question about pricing strategy which gives the respondent the opportunity to explain freely what methods he uses. Later in the survey, close-ended questions have been asked about specific pricing strategies.

In the introduction of the survey the main pricing strategies, cost-based, competition-based and value-based have been broadly defined to ensure that all participants of the survey understand the questions and are able to answer them appropriately (Andres, 2012).

The survey consisted of some general questions about the company and the survey respondent at the beginning and then followed with questions related specifically to the price setting practices of the company. Structuring a survey from general to more specific questions is an advised method (Converse & Presser, 1986).

For starters, the first price-related question was an open-ended question asking the respondent to formulate in his own words what kind of pricing strategy his company uses. This idea was taken from a research that conducted open interviews about pricing strategies of SMEs (Carson et al., 1998) who also started with a very broad question to give the respondents the opportunity to explain their pricing strategy in their own words before going into specific theoretical concepts such as cost-based, competition-based and value-based pricing.

These concepts were addressed by using items of a survey on pricing strategies at 2600 companies (De Toni, Milan, Saciloto, & Larentis, 2017). For every pricing approach 3-5 items were used that described the approaches. The items were scaled on a 5-point Likert scale (see Appendix for survey).

Rea & Parker (1992) advise to pretest surveys before sending them out to ensure that any difficulties in understanding the questions or answers can be recognized and addressed. In this study this was done by friends and family and the supervisor of the thesis. For web surveys specifically, it is advised to test them in different browsers and on different devices as well to make sure that they are accessible and readable for all respondents. This survey was test on computers using Google Chrome, Safari, and Mozilla Firefox and on smartphones, both Android and Apple.

Incentives can help increase the response rate (Fink, 2013). As there were limited resources for this study, as incentives only sharing the results of research could be offered.

Reliability has been tested by Cronbach’s Alpha which measures internal consistency between the survey items (Fink, 2013). This can be done within the items on the Likert scale and also between the overall result from the Likert scale items and the first open-question where companies described their pricing strategy in their own words.

Concerns of validity have been mitigated by using tested Likert Scale items (De Toni, Milan, Saciloto, & Larentis, 2017), and by having the survey checked by a professional, the supervisor.

3.1 Data Analysis Methodology

The web survey provider supplies a general statistical overview of the results, showing how many respondents gave which answer for a specific question, and for the scaled question giving an indication of how many per cent of the respondents gave which answer. For the open-ended question, the challenge has been to categorize the answers into either cost-based, competitor-based, value-based or no distinct pricing strategy for the first question. This then can also be compared to the respondents answer for the specific question about a pricing strategy to assess whether the respondent understands pricing strategies and whether they really are using the strategy they think they are using. Also, these questions give an overview of the general adoption of pricing strategies in the sample. For the later questions about barriers and conditions to value-based pricing, similarities need to be found between answers to be able to group them into categories that have not been specified beforehand.

4. DATA COLLECTION AND ANALYSIS

The survey has been sent to around 700 companies but only 33 of them found time to fill it in. Of these 33 only 19 filled in the survey completely, so only these 19 respondents will be considered in the following analysis. The balance between small- and medium-sized companies was comparable, with 47,4% medium-sized companies and 52,6% small-sized companies. The survey has been, with minor exceptions, filled out by either the director of the company or a sales representative.

When respondents were asked to describe their pricing strategy in their own words, 11 out of 19 said that their firm was using a cost-based pricing method or a cost-based method in combination with competition and market analyses. Three of the respondents did not seem to have understood the question as intended. Interestingly, only one respondent mentioned value-based pricing methods. The focus on cost-based methods reported in the literature is overall in line with the outcomes of the Likert-Scale items (see Table 3). However, companies reported to use value-based methods more than they did in the first question. Furthermore, competition-based practices were on average scored least. One should regard, however, that the range for competition-based practices is higher which can have resulted in the lower adoption rate.

Pricing Strategy	Mean	Range
Competition-based pricing	2,33	3,2
Value-based pricing	2,14	2,0
Cost-based pricing	1,98	2,33

Table 3: SPSS outcome, mean and range for Likert Scale items. Numbers are based on a scale of 1 (always) to 5 (never).

Above all, respondents mentioned higher or better profit margins as the main benefit of value-based pricing (5 out of 19). Still, 12 of the respondents either found that this question was not applicable to them or showed only limited understanding of the subject of value-based pricing. Two respondents had a rather negative attitude towards value-based pricing with one saying that it can only work when the product is extremely valuable to the customer and another stating that, as customers talk to each other, using value-based prices will result in major conflicts because customers do not find it fair that some have to pay more and others less for the same product. It seems that this respondent did not understand the concept of value-based pricing thoroughly as it does not require that prices differ per customer.

Lastly, the survey shows that SMEs see only limited opportunities for the implementation of value-based pricing in their companies with the main reasons being that there is pressure to provide low prices from the customers and the market, secondly, that the products the company sell are more of a "commodity" and do not offer the opportunity to give the customer added value for higher prices, and thirdly, that the successful implementation would be dependent on the capabilities of the sales force to actually keep the intended pricing strategy in mind when negotiating. However, 12 of the 19 respondents were not able to define any realistic opportunities for their business to implement value-based pricing.

5. CONCLUSION

The results from the survey confirm the poor adoption of value-based pricing that has been reported in the literature, as only one respondent stated deliberately that they are using value-based pricing predominantly. Some respondents are using value-based pricing techniques as found in the Likert Scale items but, mostly, cost-based pricing methods are used.

Also, Dutch SMEs seem to perceive the same barriers to the implementation of value-based pricing that have been defined in the literature but not all of them. The main barrier that managers are not fully aware of what value-based pricing actually is and what it can mean for their company, is visible in our sample as a great deal of respondents had difficulty reporting what they think the benefits of value-based pricing can be and where the opportunities for implementation in their own firm are. The firms that did have adequate knowledge about value-based pricing were, however, able to define recognizable obstacles that are difficult to overcome, such as the focus of buyers on getting the lowest price possible, and the lack of possibilities to differentiate the products sold, as most SMEs are operating in a very specific market and their products are rather seen as "commodities" by their buyers.

One could therefore state, looking at the barriers found empirically and the barriers found in the literature, that whilst value-based pricing can provide major benefits to large firms with wide customer bases and strong buyer-seller relationships, it is not an appropriate pricing strategy for most SMEs. The implementation would require the SMEs to make major investments in adding customer value to their products and convincing buyers that this added value is worth a higher price, which is not only a costly process but also a very difficult one regarding the position SMEs seem to have in relation with customers and competition.

6. DISCUSSION

The findings of the empirical research should be handled with caution, as the number of respondents is poor which impairs reliability. A great number of the approached companies responded that they did not have the time to take part in research. 14 respondents started filling in the survey but did not complete it. It is not known why they left the survey early. Nevertheless, one can have confidence that the respondent-specific results regarding their pricing strategies are valid, as these survey items were taken from the extensive empirical study by De Toni et al. (2017).

6.1 Implications for Theory

The research finds that value-based pricing might not be an appropriate pricing strategy for SMEs. Further research is needed to analyze whether there are other strategies that are more sophisticated than the usual cost-based methods that can be easily implemented by SMEs. For example, the model of Cannon & Morgan (1991) could serve as a basis for the development of a structured system for SMEs specifically to determine appropriate pricing strategies. The barriers and conditions for value-based pricing found in this research (see Table 2) can be useful for developing such a framework.

As it has been found that the company's ability to differentiate their product to deliver higher value, thus legitimizing higher prices, is a major condition for the effective use of value-based pricing. One could consider whether the concept of preferred supplier status is relevant to this pricing method, and whether companies who have preferred supplier status at their customers have a higher adoption rate of value-based pricing. This could contribute to analyzing what conditions SMEs should fulfill before they try to implement value-based pricing.

6.2 Implications for Practice

The literature review provides practitioners with an overview of methods to choose an appropriate pricing strategy, an explanation of how to implement value-based pricing specifically, and barriers and conditions to value-based pricing that companies should consider before implementing the pricing method.

However, the research also suggests that the implementation of value-based pricing is uncommon amongst SMEs and that there are good reasons for it, some of which could be overcome, but most of which are difficult to change because they are external to the company.

SMEs are cautioned to use value-based pricing as their dominant strategy and should rather use theoretical frameworks that systematically analyze which pricing strategy is most appropriate, considering the company's internal structure and objectives and the company's environment.

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7.1 Appendix

Table 4: Survey items

Type of Question	Survey Items	Sources
Open, Size multiple choice: 0-49, 50-250, 250 or more.	General information (Company Name, Company Size, Company function of the respondent)	-
Open question	How do you determine the price of your products?	Carson et al. (1998) used this approach in their interviews allowing the respondent to first describe the pricing strategy in their own words before asking about specific strategies from theory.
Closed question using 5-point Likert Scale	To what extent do the following statements describe the pricing strategy you use at your firm? 1) Advantages that the product offers to the customer 2) Balance between the advantages of the product and its possible price 3) Advantages that the product offers in comparison to the competitors' products 4) Perceived value of the product by the customers (benefits versus costs) 5) Price of our competitor's products 6) Degree of competition in the market 7) Current pricing strategy of our competitors 8) Reaction of our competitors to our company's prices 9) Competitive advantages of competitors in the market 10) Total cost of the product 11) Variable costs of the product 12) Profit margin percentage set by the company in relation to the price of the product	De Toni et al. (2017)
Open question	Which benefits can the use of value-based pricing have in your opinion?	-
Open question	Disregarding of whether you use value-based pricing as a dominant pricing strategy, what opportunities do you see in your own firm for the implementation of value-based pricing?	-
Open question	E-mail address and comments	-